

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT - RENEWAL

PERMITTEE

Metropolitan Water Reclamation District
of Greater Chicago
Attn: Chief of Maintenance and Operations
100 East Erie Street
Chicago, Illinois 60611

Application No.: 83090005

I.D. No.: 031063AGD

Applicant's Designation: KIRIE

Date Received: January 16, 2001

Subject: Water Reclamation Plant

Date Issued: June 26, 2001

Expiration Date: June 26, 2006

Location: 701 West Oakton, Des Plaines

This permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of eight natural gas fired boilers with back-up fuel oil, three diesel engines/generators, one gasoline storage tank, ozonators and space heaters pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued to limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 100 tons/year of Nitrogen Oxides (NO_x)). As a result the source is excluded from the requirement to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permits issued for this location.
2. Operation and emissions of the boilers and space heaters (combined) shall not exceed the following limits:
 - a. Natural Gas Usage: 62.5 mmscf/mo, 750 mmscf/yr

<u>Pollutant</u>	<u>Emission Factor</u> (Lb/mmscf)	<u>Emissions</u>	
		(Ton/Mo)	(Ton/Yr)
Nitrogen Oxides (NO _x)	100	3.1	37.5
Carbon Monoxide (CO)	84	2.6	31.5
Particulate Matter (PM)	7.6	0.2	2.9
Volatile Organic Materials (VOM)	5.5	0.2	2.1

- b. Fuel Oil Usage: 450,000 gal/mo, 1,325,000 gal/yr

<u>Emission Factor</u>	<u>Emissions</u>
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<u>Pollutant</u>	<u>(Lb/10³ Gal)</u>	<u>(Ton/Mo) (Ton/Yr)</u>	
Nitrogen Oxides (NO _x)	20	4.5	13.3
Sulfur Dioxide (SO ₂)	42.6	9.6	28.2
Carbon Monoxide (CO)	5	1.1	3.3

These limits are based on the maximum boilers operations and standard emission factors given by AP-42. Compliance with annual limits shall be determined on a monthly basis from a running total of 12 months of data.

3. Operation and emissions of the engines shall not exceed the following limits:

Fuel Oil Usage: 23,000 gal/mo, 70,000 gal/yr

<u>Pollutant</u>	<u>Emission Factor (Lb/10³ Gal)</u>	<u>Emissions (Ton/Mo) (Ton/Yr)</u>	
Nitrogen Oxides (NO _x)	448	5.1	15.7
Sulfur Dioxide (SO ₂)	42.4	0.5	1.5
Carbon Monoxide (CO)	119	1.4	4.2

These limits are based on the maximum engine operations and standard emission factors given by AP-42. Compliance with annual limits shall be determined on a monthly basis from a running total of 12 months of data.

4. At the above location, the Permittee shall not keep, store or utilize a distillate fuel oil (Grades No.1 and 2) with a sulfur content greater than the 0.3 weight percent pursuant to requirements of 35 Ill. Adm. Code 214.122(b)(2) and 214.304.
- 5a. The gasoline storage tank shall comply with the following requirements of 35 Ill. Adm. Code Part 218, Subpart Y: GASOLINE DISTRIBUTION, Section 218.583, Gasoline Dispensing Operations - Storage Tank Filling Operations:
 - i. The tank is equipped with a submerged loading pipe;
 - ii. The vapors displaced from the storage tank during filling are processed by a vapor collection system;
 - iii. All tank vent pipes are equipped with pressure/vacuum relief valves with the following design specifications:
 - A. The pressure/vacuum relief valve shall be set to resist a pressure of at least 3.5 inches water column and to resist a vacuum of no less than 6.0 inches water column;
 - B. The owner or operator of a gasoline dispensing operation demonstrates compliance with subsection 2(c)(i) above, at least annually, by measuring and recording the pressure indicated by a pressure/vacuum gauge at each tank vent pipe. The test shall be performed on each tank vent pipe within two hours after product delivery into the respective storage tank. For manifold tank vent systems, observations at any

point within the system shall be adequate. The owner and operator shall maintain any records required by this subsection for a period of three years.

- b. This permit is issued based on negligible emissions of volatile organic materials from gasoline storage tank. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.

6. This permit is issued based on negligible emissions of ozone from ozonators. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.
7. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act shall not equal or exceed 10 tons per year of any single HAP or 25 tons per year of any combination of such HAPs, or such lesser quantity as USEPA may establish in rule which would require the Permittee to obtain a CAAPP permit from the Illinois EPA. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirement to obtain a CAAPP permit from the Illinois EPA.
8. The Permittee shall maintain monthly records of the following items:
 - a. Natural gas consumption (mmscf/mo, mmscf/yr); and
 - b. Fuel oil consumption (gal/mo, gal/yr) separately for boilers and engines.
9. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.
10. If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.
11. The Permittee shall submit the following additional information with the Annual Emission Report, due May 1st of each year:
 - a. Annual natural gas and fuel oil usage.
12. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control

Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

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and one (1) copy shall be sent to the Illinois EPA regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
9511 West Harrison
Des Plaines, Illinois 60016

It should be noted that the fuel oil storage tank is exempt from state permit requirements pursuant to 35 Ill. Adm. Code 201.146(n)(3).

If you have any questions on this permit, please call Valeriy Brodsky at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:VJB:jar

cc: Illinois EPA, FOS Region 1
Illinois EPA, Compliance Section
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions of water reclamation plant operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. This is using 750 million cubic feet of gas and 1,350,000 gallons of fuel oil in the boilers and space heaters and 70,000 gallons of diesel fuel in the engines per year. The resulting maximum emissions are well below the levels, e.g. 100 tons of NO_x, at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled, and control measures are more effective than required in this permit.

1. Operation and emissions of the boilers and space heaters (combined):

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